Brook Trout Lake (0801-0009) — No Known Impacts

Waterbody Location Information

Revised: 05/03/2017

Water Index No: Ont 19- 81-58..P874
Hydro Unit Code: South Branch Moose River (0415010104)
Water Type/Size: Lake/Reservoir 79.9 Acres
Description: entire lake

Water Class: C(T)
Drainage Basin: Black River
Reg/County: 5/Hamilton (21)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Fully Supported	Known
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known: ---
Suspected: ---
Unconfirmed: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Unconfirmed: ---

Management Information

Management Status: No Action Needed
Lead Agency/Office: DOW/BWAM
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview
Brook Trout Lake is assessed as having no known impacts; all evaluated uses are considered to be fully supported. Aquatic life support in Brook Trout Lake was previously impaired by low pH, a result of atmospheric deposition (acid rain) however recent studies conducted by Adirondack Long Term Monitoring Program (ALTMP) and Adirondack Effects Assessment Program (AEAP) over the past two decades document significant water quality improvements resulting in fully supported aquatic life use. (DEC/DOW, BWAM/WQAS, May 2017)

Use Assessment
Brook Trout Lake is a Class C(T) waterbody suitable for general recreation and support of aquatic life. This waterbody is also designated as a cold water (trout) fishery.

Aquatic life was previously found to experience significant impacts, however recent monitoring data shows that the aquatic life use is no longer impaired and is fully supporting. (DEC/DOW, BWAM, May 2017)

Water Quality Information
Water quality sampling of Brook Trout Lake was conducted by the Adirondack Long Term Monitoring Program

(ALTMP) and Adirondack Effects Assessment Program (AEAP) over the past two decades. Sampling results indicate restored water quality following the implementation of state and federal emission regulations. Recent sampling has found pH has improved to 5.9 in 2012 (was 5.0 in 1980s survey) and acid neutralizing capacity is >11 uequil/L. The recovery of the lake is such that brook trout were reintroduced to the lake in Fall 2005. Survey of the lake in the following spring found the fish had survived the winter and the spring spike in lake acidity that accompanies spring snowmelt. A special study conducted by AEAP documented wild fish reproduction of Brook trout (Salvelinus fontinalis) in Brook Trout Lake in 2010. (Environ. Sci. Technol. 2015, 49, 2665−2674)

A 2012 DFWMR fishery survey indicated a healthy cold water fishery. The survey found wild brook trout and creek chub present in the lake. (DEC/DFWMR, Region 6, June 2012)

Source Assessment
There are no apparent sources of pollutants to the waterbody.

Management Action
As a result of state and national efforts to address problems caused by acid rain by reducing pollutant emissions, national SO2 and NOx emissions have declined and waterbodies like Brook Trout Lake are improving. No additional management actions have been identified or are deemed necessary for this waterbody.

Section 303(d) Listing
Brook Trout Lake is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2a of the List as a waterbody segment impaired by Atmospheric Deposition/Acid Rain. However this updated assessment suggests that the suspected impacts to water quality and uses are not sufficient to warrant continued listing. EPA is currently reviewing the Proposed 2016 NYS Section 303(d) List of Impaired/TMDL Waters and NYS suggests that this waterbody is delisted during the current review of the List. (DEC/DOW, BWAM/WQAS, May 2017)

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